(No Model.)

F. W. GORDON.

HOT BLAST STOVE.

No. 291,186. Patented Jan. 1, 1884.

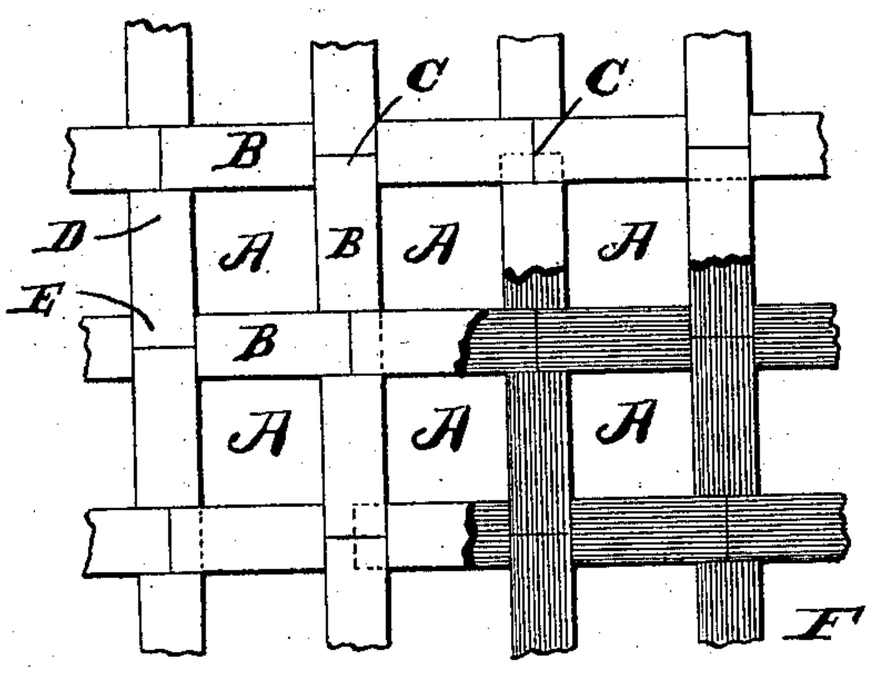

Fig. 1

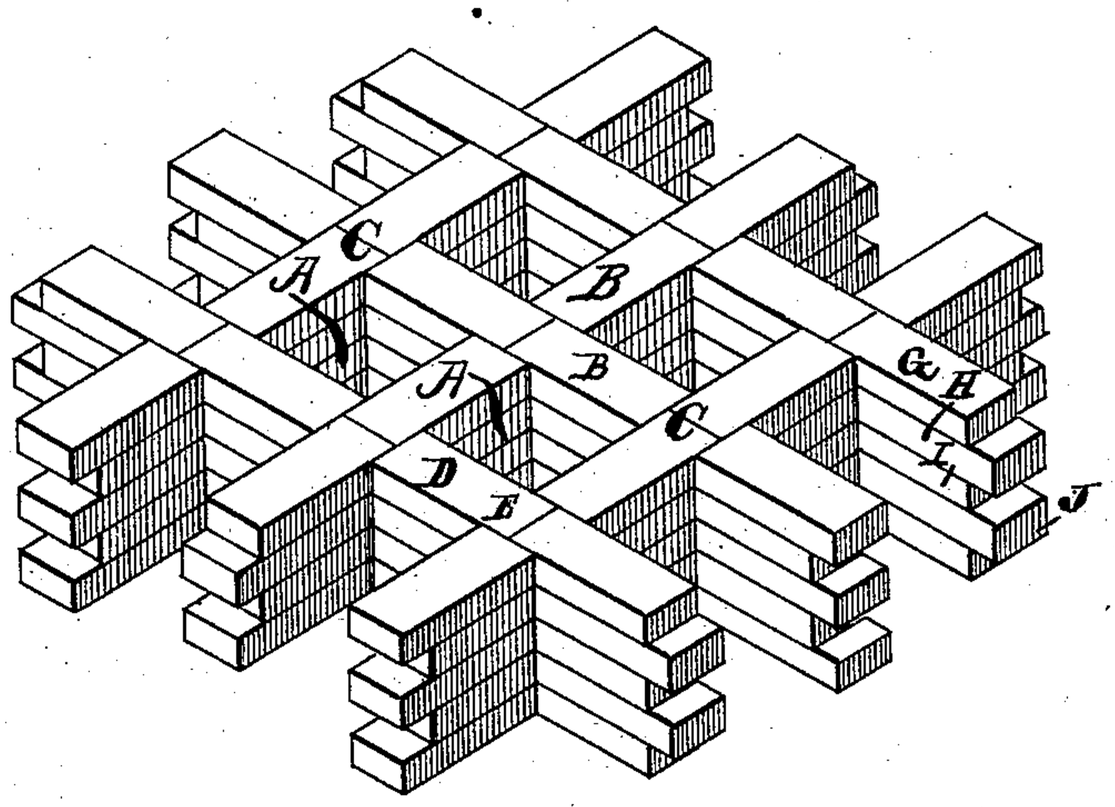

Fig. 2.

WITNESSES:

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FRED. W. GORDON, OF PITTSBURG, PENNSYLVANIA.

HOT-BLAST STOVE.

SPECIFICATION forming part of Letters Patent No. 291,186, dated January 1, 1884.

Application filed September 24, 1883. (No model.)

To all whom it may concern:

Be it known that I, FRED. W. GORDON, of Pittsburg, Allegheny county, Pennsylvania, have invented certain new and useful Improvements in Hot-Blast Stoves, of which the following is a specification.

This invention pertains to regenerative hot-blast stoves constructed with an interior filling of fire-brick or other refractory material. In these stoves the regenerator portion consists of an immense number of parallel vertical flues built of brick. The stoves are often built to a height of sixty or eighty feet, and the walls between the flues are quite thin. Any derangement of the brick-work due to warpage, &c., is likely to result in the tumbling down of some of the walls—a matter of a very serious nature, as they are very inaccessible for repairs. The tumbling of a single brick into one of the flues is liable, even if it does not unsettle the walls, to result in the clogging of that particular flue, and a succession of these accidents may, to a greater or less extent, deprive the stove of its regenerative area of flue.

Previous to my present invention, I am not aware that it has been considered possible to so bind the brick-work in the multiflue stoves, as to absolutely prohibit the movement of a loosened brick into a flue.

My invention relates particularly to a peculiar bond of the brick-work, whereby a brick perfectly loose in its seating cannot become to any serious extent displaced from its proper position.

In the accompanying drawings, Figure 1 represents in plan part of the multiflue portion of a fire-brick hot-blast stove constructed in accordance with my improvement, and Fig. 2 represents the same in perspective.

In the drawings, A represents the flues; B, the bricks of which the flue-walls are built, and C the intersections of the walls forming the flues. The walls are built of flat bricks having a width equal to the thickness of the walls desired, and having a length equal to the width of the flue plus one-half the thickness of the wall. The flues are square in section. Each brick has one of its ends abutting against the end of another brick in the intersection C, while the other end of the brick abuts against and covers the side joint of two similarly-abutting bricks in the wall, at right angles to it, as clearly shown in the drawings. Thus each brick reaches clear across the flue and half-way into the flue-wall, and the brick, even if loose, cannot be pried around so as to fall into the flue. The arrangement is clearly shown in the drawings. The alternate courses are reversed—that is, the end joint of the course at the intersections come at right angles to each other in the alternate courses. In Fig. 1, the lower right-hand corner of the view shows the upper course partly broken away, exhibiting the course immediately below it. (Shown in the dark tint in the drawings.)

It will be seen that if the brick be headed into the wall at the intersection, the brick immediately above it will be headed in at the opposite end.

I claim as my invention—

A multiflue regenerator for hot-blast stoves, formed of closed-sided flues constructed of bricks of uniform size, each brick abutting with one end against the end of another brick, and with its other end against the side joint of two similarly-abutting bricks, as shown and described.

FRED. W. GORDON.

Witnesses:

THOMAS DEEGAN,

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